

PATENT ABSTRACTS OF JAPAN

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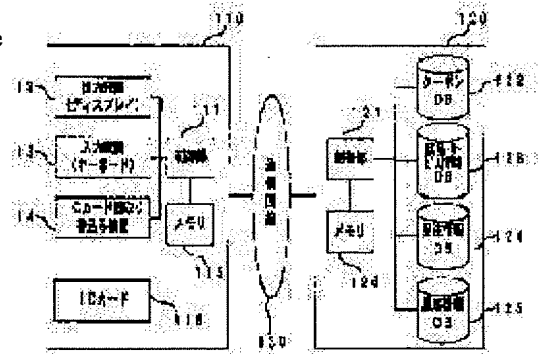
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(54) METHOD AND SYSTEM FOR USING ELECTRONIC COUPON

(57)Abstract:

PROBLEM TO BE SOLVED: To automatically select an available coupon at the time of purchasing merchandise or service, and to extract a proper coupon for preparing the next purchase of merchandise and service.

SOLUTION: A terminal equipment 110 judges whether or not an available coupon is present by retrieving coupon information stored in an IC card 116 when merchandise and service to be purchased is decided. A service device 120 receives the communication of the merchandise and service to be purchased from the terminal equipment 110, and adjusts payment to which the coupon is applied when the coupon is available by referring to a coupon DB(database) 122. Also, the server device 120 extracts the coupon information of merchandise and service to be purchased the next time for a customer by referring to a customer information DB 125 and the coupon DB 122, and transmits the coupon information to the terminal equipment 110. The terminal equipment 110 stores the received coupon information in the IC card 116.



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CLAIMS

[Claim(s)]

[Claim 1] The usage of the electronic coupon characterized by judging whether the coupon which can retrieve the coupon information stored in a store when the goods and service to purchase are determined in the approach of purchasing goods and service using a computer, and can be applied about the goods and service for which it opted exists.

[Claim 2] The usage of the electronic coupon according to claim 1 characterized by recording the purchasing hysteresis of goods and service of a customer into a store, extracting the coupon of goods and service with which purchasing is expected next with reference to this purchasing hysteresis, and storing the coupon information in a store.

[Claim 3] The system using the electronic coupon characterized by to have a means judge whether a coupon applicable about a storage means store coupon information, and the goods and the service for which retrieved this coupon information when the goods and the service to purchase was determined, and it opted in the system which supports the purchase of goods and service using a computer exists.

[Claim 4] It judges whether the coupon which it is the computer program substantiated on the storage in which computer reading is possible, this program can retrieve the coupon information stored in a store when the goods and service which carries out :(a) purchase containing the following step are determined, and can be applied about the goods and service which made (b) decision exists.

[Claim 5] It is the computer program substantiated on the storage in which computer reading is possible, and this program extracts the coupon of goods and service with which purchasing is expected next out of the coupon information on (b) plurality, it turns to a terminal unit the coupon information which carried out (c) extract, and transmits it with reference to the purchasing hysteresis of the goods and the service of a customer stored in :(a) store containing the following step.

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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention] In case this invention purchases goods and service, it relates to the electronic coupon utilization system using the coupon which goods and the provider of service publish.

[0002]

[Description of the Prior Art] Although there was discount service in business from the former, this was the approach of discounting, when you buy a certain goods. Now, since a customer's immobilization was not able to be attained, the structure of a rebate check was able to be considered. There is a coupon filed by booklet like the coupon book which the coupon added to the inserted advertisement of a newspaper or a journal and a coupon publisher create as a rebate check. The coupon user found the goods which he is going to purchase among these coupons, brought the coupon at the shop front for every goods, and had received the discount. In addition, the technique indicated by JP,7-121772,A is known by what is related as this kind of a technique. This technique outputs a coupon utilizable [with the POS system of a shop front] for the next goods purchase, and at the time of coming to the store, a coupon user brings that coupon and receives a discount next time.

[0003]

[Problem(s) to be Solved by the Invention] According to the above-mentioned Prior art, various goods and the coupon of service were sent as insertion of a newspaper and a journal or a booklet only for coupons to the coupon user, and the goods which he is going to purchase from the inside after this, and the coupon of service are found, and the coupon user clipped it, brought at the store, received the discount, and had the problem that choice of a coupon took time and effort. Moreover, indefinite various coupons were created [whether it is used and or not] as a coupon provider, and there was a problem that great cost started in the field of supplying a coupon user widely.

[0004] Moreover, JP,7-121772,A had to come to the store at the shop front, and had to bring the coupon at the time of the next purchase of the goods which output a coupon to media, such as paper, and correspond to them to the purchaser of goods, such a coupon existed for every goods, and the user side covered two or more goods, managed two or more coupons, and had the problem that it had to select each time and had to use. Moreover, since the coupon was published as a coupon publisher side, without taking into consideration a customer's purchasing situation, a customer's attribute, etc., there was a problem that the coupon to publish was not used effectively.

[0005] The object of this invention is to choose automatically the coupon which can be applied in case goods and service are purchased.

[0006] Other objects of this invention are to extract a suitable coupon in preparation for the purchase of following goods and service.

[0007]

[Means for Solving the Problem] This invention is characterized by the usage of an electronic coupon of judging whether the coupon which can retrieve the coupon information stored in a store and can apply it about the goods and service for which it opted existing, when the goods and service to purchase are determined.

[0008] Moreover, this invention records the purchasing hysteresis of goods and service of a customer into a store, extracts the coupon of goods and service with which purchasing is expected next with reference to this purchasing hysteresis, and is characterized by the usage of an electronic coupon of storing the coupon information in a store.

[0009]

[Embodiment of the Invention] Hereafter, a drawing explains the operation gestalt of this invention to a detail.

[0010] Drawing 1 is system configuration drawing showing the operation gestalt of this invention. In drawing 1, 110 is a terminal unit by the side of a coupon service user, 120 is server equipment by the side of a coupon service provider, and these equipments are connected by the communication line 130. The output units 112, such as a display which displays the goods and service information which terminal units 110 are information processors, such as a personal computer, and is transmitted, a ten key, The memory 115 which stores

temporarily the program of the IC card read write-in equipment 114 for writing the information stored in the input units 113, such as a keyboard and a mouse, and an IC card, and a terminal unit 110, It consists of IC card 116 which keeps the individual information of the control section 111 which connects an output unit 112, an input unit 113, IC card read write-in equipment 114, and memory 115, and controls these, and a coupon service user. The server equipment 120 by the side of a coupon service provider is information processors, such as a personal computer, and consists of the control section 121 which controls the memory 126 which stores temporarily the program of a coupon DB(database) 122, goods and service information DB123, the award information DB124, the customer information DB125, and server equipment 120, these DB(s), and memory 126. With this operation gestalt, although, as for the terminal unit 110 by the side of a coupon service user, only one set is shown, two or more terminal units 110 are connected to the server equipment 120 by the side of a coupon service provider through the communication line 130 actually natural.

[0011] Drawing 2 is internal configuration drawing of IC card 116 shown in drawing 1 , and consists of CPU210 which controls R/W of the information on the personal identification number storage section 211, the customer attribute information storage section 212, the purchasing hysteresis information storage section 213 and the coupon information storage sections 214, and these storage sections.

[0012] Drawing 3 is the block diagram of the personal identification number information table 300 stored in the personal identification number storage section 211. the principal, the individual for whom the personal identification number information table 300 uses an IC card, -- it consists of personal identification number columns 301 for attesting.

[0013] Drawing 4 is the block diagram of the customer attribute information table 400 stored in the customer attribute information storage section 212. The customer attribute information table 400 stores the individual humanity news of the user who holds an IC card, and consists of the customer number column 401, the name column 402, the address column 403, the mail address column 404, the sex column 405, the date-of-birth column 406, a blood group column 407, a hobby column 408, and occupation column 409 grade.

[0014] Drawing 5 is the block diagram of the purchasing hysteresis information table 500 stored in the purchasing hysteresis information storage section 213. The purchasing hysteresis information table 500 stores the purchasing hysteresis of the user who holds an IC card, and consists of the purchasing Japanese column 501, the bar code column 502, a trade name column 503, an amount-of-money column 504, and a coupon utilization existence column 505.

[0015] Drawing 6 is the block diagram of the coupon information storage table 600 stored in the coupon information storage section 214. The coupon information storage table 600 stores the coupon information used in order to enjoy privileges, such as a discount, in case the user who holds an IC card stores the coupon transmitted from the server equipment 120 by the side of a coupon service provider and purchases goods and service. The coupon information storage table 600 consists of the coupon code field 601 for specifying the goods and service purchased in case privileges, such as a discount, are enjoyed, and an available coupon, a trade name column 602 which can use the coupon, a content column 603 of a privilege in the coupon concerned, and an expiration date column 604 of the coupon concerned.

[0016] Drawing 7 is the block diagram of the coupon information storage table 700 stored in the coupon DB122 of server equipment 120. the coupon information storage table 700 being the almost same configuration as the coupon information table 600 in the above-mentioned IC card, and differing -- the content of the expiration date column 704 -- for example, -- " -- after publishing, it is expressing the expiration date of a coupon in the relative period like three-month."

[0017] Goods and the service information DB123 store the image information of the name, goods and a service code, attributes (a color, size, a specification, the engine performance, function, etc.), a price, and goods etc. about each goods and service. The award information DB124 stores the customer number column 401, the name column 402, the address column 403, the mail address column 404, goods and a service code, quantity, the total amount of money, etc. about the goods and service which received the order. The customer information DB125 stores the customer attribute from the customer number column 401 of the customer attribute information table 400 to the occupation column 409.

[0018] Next, it explains according to the flow chart which shows processing actuation of this electronic coupon system to drawing 8 . A terminal unit 110 inputs a personal identification number through an input unit 113, in order that the IC card received as detecting that IC card 116 was inserted in IC card reading dictation equipment 114 by the coupon service user may judge whether it is a user's thing of a principal (step 802). (step 801) If the personal identification number inputted in step 802 is compared with the personal identification number 301 of the personal identification number information table 300 stored in the personal identification number storage section 211 and the personal identification number is not in agreement, an IC card is judged to be what cannot be used and ends this processing. if the personal identification number is in agreement -- the principal, an IC card user, -- the check should be completed and transmission and reception of the information on the server equipment 120 of a coupon service provider are started (step 803). Server equipment 120

transmits the information stored in goods and the service information DB123 to a terminal unit 110 through a communication line 130 (step 814). Which approaches, such as information distribution by distribution of the contents by the Internet etc., the television broadcasting which can perform informational transmission and reception in both directions, may be used for transmission of the information on step 814. A terminal unit 110 receives the goods and service information transmitted from server equipment 120, and displays it on an output unit 112 (step 804). It judges whether a terminal unit 110 has a coupon applicable to the goods and service for which searched the coupon information storage table 600 in IC card 116 by the trade name 602, and purchase opted, when the goods and service which made a purchase decision through the input device 113 are inputted (step 805) (step 806). If there is no coupon applicable to the coupon information storage table 600, it will progress to step 809. When there is a coupon applicable to the coupon information storage table 600, with reference to the expiration date 604 of the coupon concerned in the coupon information storage table 600, the date which received the input of purchase goods and service is compared (step 807), if the expiration date has run out, the coupon will be judged to be what cannot be used, and the information on the coupon concerned is eliminated from the coupon information storage table 600 (step 808). When the coupon concerned cannot be found at step 806 or the expiration date of the coupon concerned has run out at step 807 The purchasing goods and service information received at step 805 since there was no utilization of the coupon in this time, The customer number 401 in the customer attribute information table 400 stored in IC card 116, The purchasing day 501 in the purchasing hysteresis information table 500 which is the purchasing hysteresis of a name 402, an address 403, a mail address 404, sex 405, a date of birth 406, a blood group 407, a hobby 408, an occupation 409, and the past, a bar code 502, a trade name 503, the amount of money 504, The coupon utilization existence 505 is transmitted to server equipment 120 through a communication line 130 (step 809). It is judged that utilization of a coupon can be performed when there is the coupon concerned at step 806 and the expiration date of the coupon concerned is being filled with step 807. In addition to the transmit information of the above-mentioned step 809, the coupon code 601 of the coupon concerned in the coupon information table 600 stored in IC card 116, a trade name 602, the content 603 of a privilege, and an expiration date 604 are doubled. Transmitting to server equipment 120 through a communication line 130, (step 810) the coupon concerned should be used by this processing and eliminates the information on the coupon concerned from the coupon information storage table 600 (step 811). Server equipment 120 receives the information transmitted through a communication line 130 from the terminal unit 110 (step 815). The expiration date of whether the information about a coupon is in the information received at step 815 or there is nothing, and a coupon judges whether it is within length (step 816), and when there is no utilization of a coupon, it progresses to that utilization of a coupon is impossible, or step 818 explained later. At step 816, when utilization of a coupon is possible, settlement-of-accounts processing is carried out according to the content of a privilege of a coupon (step 817). Although the example which discounts 10% as a content 603 of a privilege from the offer price by the side of "10%off" and a coupon service provider was given with the operation gestalt of this invention, the contents of a privilege, such as a goods present and a gold note present, have various things in addition to the discount of the amount of money. Server equipment 120 extracts the coupon of the goods which the coupon service user will use next by the information transmitted from the terminal unit 110, and the know how accumulated until now from a coupon DB122 (step 818). A concrete example of coupon extract processing of step 818 is shown. In the information transmitted from a terminal unit 110, from the customer attribute information table 400, if there being purchasing hysteresis of a gentleman suite, Y shirt, and socks from they being 29 years old, a male, and an office worker and the purchasing hysteresis information table 500 and these purchasing goods are gentleman shoes, server equipment 120 can be judged that this user may purchase a necktie next time with reference to the dealings hysteresis to which the past is similar. Then, the coupon of a necktie is extracted with reference to a coupon DB122. The technique of presuming the high goods of the probability purchased next from correlation between two or more goods is known as a data-mining technique. The confirmed information (a purchasing day, a bar code, a trade name, amount of money, existence of coupon utilization) of a carrier beam order and the information on the proper coupon extracted at step 818 (a coupon code, a trade name, the content of a privilege, expiration date) are transmitted to a terminal unit 110 through a communication line 130 this time (step 819), and a series of actuation of server equipment 120 is completed. A terminal unit 110 receives the order confirmed information and coupon information which have been transmitted through a communication line 130 (step 812). The information about purchase goods is written in the purchasing hysteresis information table 500 in the purchasing hysteresis information storage section 213 of IC card 116 through IC card reading write-in equipment 114 among the information received at step 812, the information about a coupon is written in the coupon information storage table 600 in the coupon information storage section 214 through IC card reading write-in equipment 114 (step 813), and a series of actuation of a terminal unit 110 is ended.

[0019] The processing program from step 801 which shows actuation of a terminal unit 110 to step 813 is distributed by storages, such as a floppy disk and CD-ROM, or is transmitted to a terminal unit 110 through a communication line, is stored in the memory 115 in a terminal unit 110, and is performed. Moreover, by the same

means, the processing program from step 814 which shows actuation of server equipment 120 similarly to step 819 is distributed or transmitted, is stored in the memory 126 in server equipment 120, and is performed.

[0020] Although the operation gestalt of this invention was explained above, deformation various in the range which is not limited to the above-mentioned operation gestalt and does not deviate from the main point of this invention is possible for this invention. For example, although it had the customer attribute information table 400 and the purchasing hysteresis information table 500 in IC card 116 and such information was transmitted to server equipment 120 with purchase goods information with the above-mentioned operation gestalt, such information may be beforehand stored in the storage by the side of server equipment 120, and may be managed. In that case, if the customer attribute information table 400 in IC card 116 by the side of a terminal unit 110 stores only a customer number 401 and server equipment 120 manages customer information corresponding to this customer number, other processings will be as above-mentioned.

[0021] Moreover, with the above-mentioned operation gestalt, although goods and a coupon proper at the purchase event of service were extracted, a coupon service user may transmit coupon information to the midst which has selected goods and service with reference to the information displayed on an output unit 112. In this case, server equipment 120 performs transmission of the new coupon under processing of step 818 and step 819 following step 814, and a terminal unit 110 writes the new coupon information received in step 813 to asynchronous in IC card 116.

[0022] Moreover, although the information in IC card 116 is transmitted to server equipment 120 through a communication line and it is utilizing for coupon service with the above-mentioned operation gestalt, this IC card is brought at a store and you can enable it to receive the same service. In that case, the server equipment 120 or the POS terminal of a store does not process steps 814, 815, and 819, but processes steps 816-818, and only writes the information on a new coupon, and the information on purchase goods in IC card 116. Moreover, processing of steps 806-808 is performed by server equipment 120 or the POS terminal as check processing of step 816. The content of IC card 116 is not different from the above-mentioned operation gestalt.

[0023] Moreover, although the information in an IC card is limited to the information about utilization and it of a coupon, you may make it give a settlement-of-accounts function to this IC card with the above-mentioned operation gestalt. In addition, it is possible to apply to two or more stores, such as a shopping mall on the Internet in which the data format of IC card 116 is unified into, and two or more stores are held.

[0024]

[Effect of the Invention] As explained above, according to this invention, a coupon user can save the time and effort of looking for the coupon which can select a coupon or can be applied to purchase goods, and can publish the coupon utilized effective in a user also as a coupon provider. For this reason, the convenience at the time of using a coupon for a coupon user can improve, and a coupon provider can publish an effective coupon.

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TECHNICAL FIELD

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PRIOR ART

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EFFECT OF THE INVENTION

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TECHNICAL PROBLEM

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[0005] The object of this invention is to choose automatically the coupon which can be applied in case goods and service are purchased.

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MEANS

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[0008] Moreover, this invention records the purchasing hysteresis of goods and service of a customer into a store, extracts the coupon of goods and service with which purchasing is expected next with reference to this purchasing hysteresis, and is characterized by the usage of an electronic coupon of storing the coupon information in a store.

[0009]

[Embodiment of the Invention] Hereafter, a drawing explains the operation gestalt of this invention to a detail.

[0010] Drawing 1 is system configuration drawing showing the operation gestalt of this invention. In drawing 1, 110 is a terminal unit by the side of a coupon service user, 120 is server equipment by the side of a coupon service provider, and these equipments are connected by the communication line 130. The output units 112, such as a display which displays the goods and service information which terminal units 110 are information processors, such as a personal computer, and is transmitted, a ten key, The memory 115 which stores temporarily the program of the IC card read write-in equipment 114 for writing the information stored in the input units 113, such as a keyboard and a mouse, and an IC card, and a terminal unit 110, It consists of IC card 116 which keeps the individual information of the control section 111 which connects an output unit 112, an input unit 113, IC card read write-in equipment 114, and memory 115, and controls these, and a coupon service user. The server equipment 120 by the side of a coupon service provider is information processors, such as a personal computer, and consists of the control section 121 which controls the memory 126 which stores temporarily the program of a coupon DB(database) 122, goods and service information DB123, the award information DB124, the customer information DB125, and server equipment 120, these DB(s), and memory 126. With this operation gestalt, although, as for the terminal unit 110 by the side of a coupon service user, only one set is shown, two or more terminal units 110 are connected to the server equipment 120 by the side of a coupon service provider through the communication line 130 actually natural.

[0011] Drawing 2 is internal configuration drawing of IC card 116 shown in drawing 1, and consists of CPU210 which controls R/W of the information on the personal identification number storage section 211, the customer attribute information storage section 212, the purchasing hysteresis information storage section 213 and the coupon information storage sections 214, and these storage sections.

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goods and service purchased in case privileges, such as a discount, are enjoyed, and an available coupon, a trade name column 602 which can use the coupon, a content column 603 of a privilege in the coupon concerned, and an expiration date column 604 of the coupon concerned.

[0016] Drawing 7 is the block diagram of the coupon information storage table 700 stored in the coupon DB122 of server equipment 120. the coupon information storage table 700 being the almost same configuration as the coupon information table 600 in the above-mentioned IC card, and differing — the content of the expiration date column 704 — for example, — “— after publishing, it is expressing the expiration date of a coupon in the relative period like three-month.”

[0017] Goods and the service information DB123 store the image information of the name, goods and a service code, attributes (a color, size, a specification, the engine performance, function, etc.), a price, and goods etc. about each goods and service. The award information DB124 stores the customer number column 401, the name column 402, the address column 403, the mail address column 404, goods and a service code, quantity, the total amount of money, etc. about the goods and service which received the order. The customer information DB125 stores the customer attribute from the customer number column 401 of the customer attribute information table 400 to the occupation column 409.

[0018] Next, it explains according to the flow chart which shows processing actuation of this electronic coupon system to drawing 8. A terminal unit 110 inputs a personal identification number through an input unit 113, in order that the IC card received as detecting that IC card 116 was inserted in IC card reading dictation equipment 114 by the coupon service user may judge whether it is a user's thing of a principal (step 802). (step 801) If the personal identification number inputted in step 802 is compared with the personal identification number 301 of the personal identification number information table 300 stored in the personal identification number storage section 211 and the personal identification number is not in agreement, an IC card is judged to be what cannot be used and ends this processing. if the personal identification number is in agreement — the principal, an IC card user, — the check should be completed and transmission and reception of the information on the server equipment 120 of a coupon service provider are started (step 803). Server equipment 120 transmits the information stored in goods and the service information DB123 to a terminal unit 110 through a communication line 130 (step 814). Which approaches, such as information distribution by distribution of the contents by the Internet etc., the television broadcasting which can perform informational transmission and reception in both directions, may be used for transmission of the information on step 814. A terminal unit 110 receives the goods and service information transmitted from server equipment 120, and displays it on an output unit 112 (step 804). It judges whether a terminal unit 110 has a coupon applicable to the goods and service for which searched the coupon information storage table 600 in IC card 116 by the trade name 602, and purchase opted, when the goods and service which made a purchase decision through the input device 113 are inputted (step 805) (step 806). If there is no coupon applicable to the coupon information storage table 600, it will progress to step 809. When there is a coupon applicable to the coupon information storage table 600, with reference to the expiration date 604 of the coupon concerned in the coupon information storage table 600, the date which received the input of purchase goods and service is compared (step 807), if the expiration date has run out, the coupon will be judged to be what cannot be used, and the information on the coupon concerned is eliminated from the coupon information storage table 600 (step 808). When the coupon concerned cannot be found at step 806 or the expiration date of the coupon concerned has run out at step 807 The purchasing goods and service information received at step 805 since there was no utilization of the coupon in this time, The customer number 401 in the customer attribute information table 400 stored in IC card 116, The purchasing day 501 in the purchasing hysteresis information table 500 which is the purchasing hysteresis of a name 402, an address 403, a mail address 404, sex 405, a date of birth 406, a blood group 407, a hobby 408, an occupation 409, and the past, a bar code 502, a trade name 503, the amount of money 504, The coupon utilization existence 505 is transmitted to server equipment 120 through a communication line 130 (step 809). It is judged that utilization of a coupon can be performed when there is the coupon concerned at step 806 and the expiration date of the coupon concerned is being filled with step 807. In addition to the transmit information of the above-mentioned step 809, the coupon code 601 of the coupon concerned in the coupon information table 600 stored in IC card 116, a trade name 602, the content 603 of a privilege, and an expiration date 604 are doubled. Transmitting to server equipment 120 through a communication line 130, (step 810) the coupon concerned should be used by this processing and eliminates the information on the coupon concerned from the coupon information storage table 600 (step 811). Server equipment 120 receives the information transmitted through a communication line 130 from the terminal unit 110 (step 815). The expiration date of whether the information about a coupon is in the information received at step 815 or there is nothing, and a coupon judges whether it is within length (step 816), and when there is no utilization of a coupon, it progresses to that utilization of a coupon is impossible, or step 818 explained later. At step 816, when utilization of a coupon is possible, settlement-of-accounts processing is carried out according to the content of a privilege of a coupon (step 817). Although the example which discounts 10% as a content 603 of a privilege from the offer price by the side of “10%off” and a coupon

service provider was given with the operation gestalt of this invention, the contents of a privilege, such as a goods present and a gold note present, have various things in addition to the discount of the amount of money. Server equipment 120 extracts the coupon of the goods which the coupon service user will use next by the information transmitted from the terminal unit 110, and the know how accumulated until now from a coupon DB122 (step 818). A concrete example of coupon extract processing of step 818 is shown. In the information transmitted from a terminal unit 110, from the customer attribute information table 400, if there being purchasing hysteresis of a gentleman suite, Y shirt, and socks from they being 29 years old, a male, and an office worker and the purchasing hysteresis information table 500 and these purchasing goods are gentleman shoes, server equipment 120 can be judged that this user may purchase a necktie next time with reference to the dealings hysteresis to which the past is similar. Then, the coupon of a necktie is extracted with reference to a coupon DB122. The technique of presuming the high goods of the probability purchased next from correlation between two or more goods is known as a data-mining technique. The confirmed information (a purchasing day, a bar code, a trade name, amount of money, existence of coupon utilization) of a carrier beam order and the information on the proper coupon extracted at step 818 (a coupon code, a trade name, the content of a privilege, expiration date) are transmitted to a terminal unit 110 through a communication line 130 this time (step 819), and a series of actuation of server equipment 120 is completed. A terminal unit 110 receives the order confirmed information and coupon information which have been transmitted through a communication line 130 (step 812). The information about purchase goods is written in the purchasing hysteresis information table 500 in the purchasing hysteresis information storage section 213 of IC card 116 through IC card reading write-in equipment 114 among the information received at step 812, the information about a coupon is written in the coupon information storage table 600 in the coupon information storage section 214 through IC card reading write-in equipment 114 (step 813), and a series of actuation of a terminal unit 110 is ended.

[0019] The processing program from step 801 which shows actuation of a terminal unit 110 to step 813 is distributed by storages, such as a floppy disk and CD-ROM, or is transmitted to a terminal unit 110 through a communication line, is stored in the memory 115 in a terminal unit 110, and is performed. Moreover, by the same means, the processing program from step 814 which shows actuation of server equipment 120 similarly to step 819 is distributed or transmitted, is stored in the memory 126 in server equipment 120, and is performed.

[0020] Although the operation gestalt of this invention was explained above, deformation various in the range which is not limited to the above-mentioned operation gestalt and does not deviate from the main point of this invention is possible for this invention. For example, although it had the customer attribute information table 400 and the purchasing hysteresis information table 500 in IC card 116 and such information was transmitted to server equipment 120 with purchase goods information with the above-mentioned operation gestalt, such information may be beforehand stored in the storage by the side of server equipment 120, and may be managed. In that case, if the customer attribute information table 400 in IC card 116 by the side of a terminal unit 110 stores only a customer number 401 and server equipment 120 manages customer information corresponding to this customer number, other processings will be as above-mentioned.

[0021] Moreover, with the above-mentioned operation gestalt, although goods and a coupon proper at the purchase event of service were extracted, a coupon service user may transmit coupon information to the midst which has selected goods and service with reference to the information displayed on an output unit 112. In this case, server equipment 120 performs transmission of the new coupon under processing of step 818 and step 819 following step 814, and a terminal unit 110 writes the new coupon information received in step 813 to asynchronous in IC card 116.

[0022] Moreover, although the information in IC card 116 is transmitted to server equipment 120 through a communication line and it is utilizing for coupon service with the above-mentioned operation gestalt, this IC card is brought at a store and you can enable it to receive the same service. In that case, the server equipment 120 or the POS terminal of a store does not process steps 814, 815, and 819, but processes steps 816-818, and only writes the information on a new coupon, and the information on purchase goods in IC card 116. Moreover, processing of steps 806-808 is performed by server equipment 120 or the POS terminal as check processing of step 816. The content of IC card 116 is not different from the above-mentioned operation gestalt.

[0023] Moreover, although the information in an IC card is limited to the information about utilization and it of a coupon, you may make it give a settlement-of-accounts function to this IC card with the above-mentioned operation gestalt. In addition, it is possible to apply to two or more stores, such as a shopping mall on the Internet in which the data format of IC card 116 is unified into, and two or more stores are held.

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] It is system configuration drawing of an operation gestalt.

[Drawing 2] It is internal configuration drawing of IC card 116 of an operation gestalt.

[Drawing 3] It is the block diagram of the personal identification number information table 300 in the IC card of an operation gestalt.

[Drawing 4] It is the block diagram of the customer attribute information table 400 in the IC card of an operation gestalt.

[Drawing 5] It is the block diagram of the purchasing hysteresis information table 500 in the IC card of an operation gestalt.

[Drawing 6] It is the block diagram of the coupon information storage table 600 in the IC card of an operation gestalt.

[Drawing 7] It is the data block diagram of the coupon information table 700 of the coupon DB122 of an operation gestalt.

[Drawing 8] It is the flow chart which shows processing actuation of the system of an operation gestalt.

[Description of Notations]

110: A terminal unit, 120:server equipment, a 116:IC card, the 122:coupon DB, 212:customers attribute information storage section, the 213:purchasing hysteresis information storage section, 214 : coupon information storage section

[Translation done.]

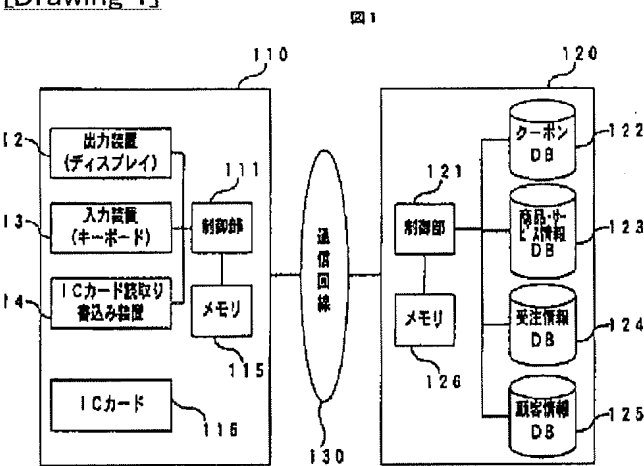
* NOTICES *

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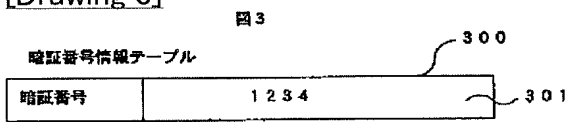
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DRAWINGS

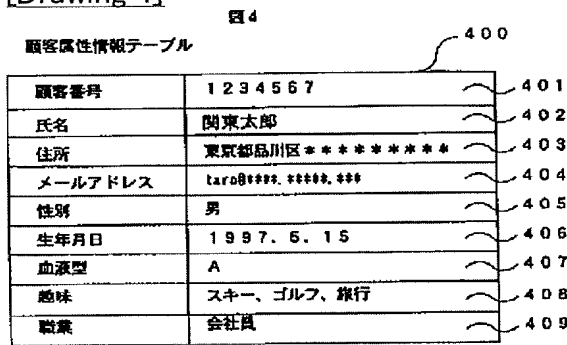
[Drawing 1]



[Drawing 3]

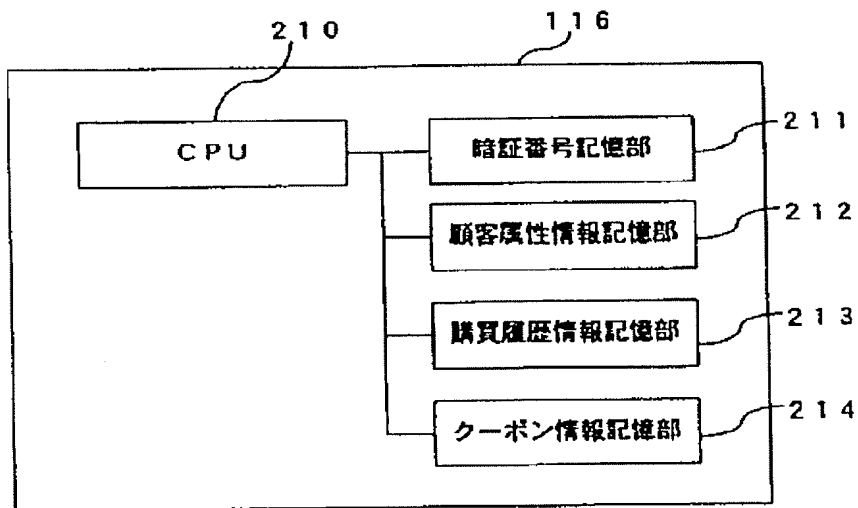


[Drawing 4]



[Drawing 2]

図2



[Drawing 5]

図5

購買履歴情報テーブル

501 購買日	502 商品コード	503 商品名	504 金額	505 クーポン利用有無
1997.1.8	12345	紳士スーツ	58,000	無
1997.1.15	25151	Yシャツ	8,000	無
1997.1.28	98765	靴下	500	無

[Drawing 6]

図6

クーポン情報記憶テーブル

601 クーポンコード	602 商品名	603 特典内容	604 有効期限
21368	紳士靴	10%off	1997.5.31

[Drawing 7]

図7

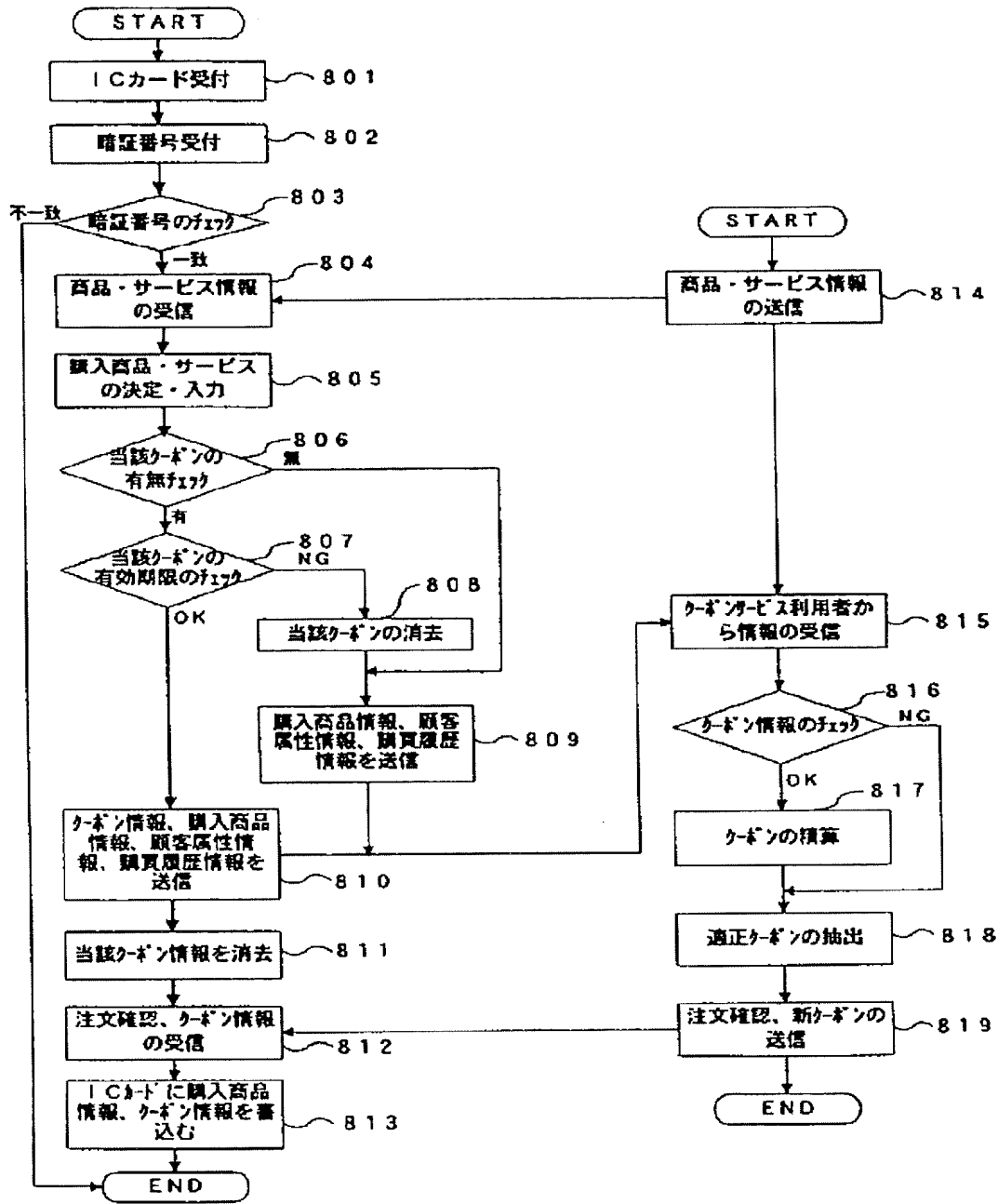
クーポン情報記憶テーブル

701 クーポンコード	702 商品名	703 特典内容	704 有効期限
21368	紳士靴	10%off	発行日から3ヶ月
54681	紳士靴	20%off	発行日から6ヶ月
63189	ネクタイ	5%off	発行日から4ヶ月

[Drawing 8]

端末装置 110 :

サーバ装置 120 :



[Translation done.]

(19)日本国特許庁 (J P)

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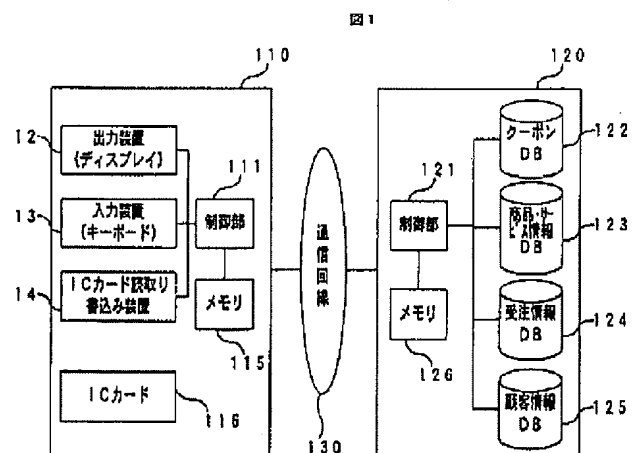
(74)代理人 弁理士 小川 勝男

(54)【発明の名称】 電子クーポンの利用方法及びシステム

(57)【要約】

【課題】 商品・サービスを購入する際に適用可能なクーポンを自動的に選択する。また次の商品・サービスの購入に備えて適切なクーポンを抽出する。

【解決手段】 端末装置110は、購入する商品・サービスが決定したとき、ICカード116に格納されるクーポン情報を検索して適用可能なクーポンが存在するかどうかを判定する。サーバ装置120は、端末装置110から購入する商品・サービスの通知を受けたとき、クーポンDB122を参照してクーポンが適用可能であればクーポンを適用する支払金額の精算をする。またサーバ装置120は、顧客情報DB125とクーポンDB122を参照して当該顧客について次に購買が予想される商品・サービスのクーポン情報を抽出し、そのクーポン情報を端末装置110へ送信する。端末装置110は、受け取ったクーポン情報をICカード116に格納する。



【特許請求の範囲】

【請求項 1】 コンピュータを利用して商品・サービスを購入する方法において、購入する商品・サービスが決定したとき記憶装置中に格納されるクーポン情報を検索し、決定した商品・サービスについて適用可能なクーポンが存在するか否かを判定することを特徴とする電子クーポンの利用方法。

【請求項 2】 顧客の商品・サービスの購買履歴を記憶装置中に記録し、該購買履歴を参照して次に購買が予想される商品・サービスのクーポンを抽出し、そのクーポン情報を記憶装置中に格納することを特徴とする請求項 1 記載の電子クーポンの利用方法。

【請求項 3】 コンピュータを利用して商品・サービスの購入を支援するシステムにおいて、クーポン情報を格納する記憶手段と、購入する商品・サービスが決定したとき該クーポン情報を検索し、決定した商品・サービスについて適用可能なクーポンが存在するか否かを判定する手段とを有することを特徴とする電子クーポンを利用するシステム。

【請求項 4】 コンピュータ読み取り可能な記憶媒体上に実体化されたコンピュータプログラムであって、該プログラムは下記ステップを含む：

(a) 購入する商品・サービスが決定したとき記憶装置中に格納されるクーポン情報を検索し、(b) 決定した商品・サービスについて適用可能なクーポンが存在するか否かを判定する。

【請求項 5】 コンピュータ読み取り可能な記憶媒体上に実体化されたコンピュータプログラムであって、該プログラムは下記ステップを含む：

(a) 記憶装置中に格納される顧客の商品・サービスの購買履歴を参照し、(b) 複数のクーポン情報の中から次に購買が予想される商品・サービスのクーポンを抽出し、(c) 抽出したクーポン情報を端末装置に向けて送信する。

【発明の詳細な説明】**【0001】**

【発明の属する技術分野】 本発明は、商品やサービスを購入する際に商品やサービスの提供者が発行するクーポンを利用する電子クーポン利用システムに関する。

【0002】

【従来の技術】 従来から商取引には割引サービスがあったが、これはある商品を買った時点で割引く方法であった。これでは顧客の固定化が図れないため、割引クーポンの仕組みが考えられた。割引クーポンとしては、新聞や雑誌の折り込み広告に付加されているクーポン券やクーポン発行者が作成するクーポンブックのような冊子に綴じ込まれているクーポン券がある。クーポン利用者は、これらのクーポン券のうち自分が購入しようとする商品を見つけ、商品ごとにそのクーポン券を店頭を持参して割引を受けていた。なおこの種の技術として関連す

るものには、例えば特開平 7 - 1 2 1 7 7 2 号公報に記載されている技術が知られている。この技術は店頭の P O S システムによって次回の商品購入に活用できるクーポン券を出力し、クーポン利用者は次回来店時にそのクーポン券を持参し割引を受けるものである。

【0003】

【発明が解決しようとする課題】 上記従来の技術によれば、クーポン利用者に対して様々な商品やサービスのクーポン券が新聞、雑誌の折り込み、またはクーポン専用の冊子として送付され、クーポン利用者はその中から自分がこれから購入しようとする商品やサービスのクーポン券を見つけ、それを切り抜いて店舗に持参し割引を受けるようになっており、クーポンの取捨選択に手間がかかるという問題があった。またクーポン提供者としては、利用されるか否か不明確な種々のクーポン券を作成し、クーポン利用者に配布するといった面で多大なコストがかかるという問題があった。

【0004】 また特開平 7 - 1 2 1 7 7 2 号公報は、店頭に来店し商品の購入者に対して紙などの媒体にクーポン券を出力し、該当する商品の次回購入時にそのクーポン券を持参しなければならない、このようなクーポン券は商品ごとに存在し利用者側は複数商品に亘って複数のクーポン券を管理し、その都度取捨選択して利用しなければならないという問題があった。またクーポン発行者側としては、顧客の購買状況や顧客の属性などを考慮せずにクーポン券を発行しているため、発行するクーポン券が有効に利用されていないという問題があった。

【0005】 本発明の目的は、商品・サービスを購入する際に適用可能なクーポンを自動的に選択することにある。

【0006】 本発明の他の目的は、次の商品・サービスの購入に備えて適切なクーポンを抽出することにある。

【0007】

【課題を解決するための手段】 本発明は、購入する商品・サービスが決定したとき記憶装置中に格納されるクーポン情報を検索し、決定した商品・サービスについて適用可能なクーポンが存在するか否かを判定する電子クーポンの利用方法の特徴とする。

【0008】 また本発明は、顧客の商品・サービスの購買履歴を記憶装置中に記録し、該購買履歴を参照して次に購買が予想される商品・サービスのクーポンを抽出し、そのクーポン情報を記憶装置中に格納する電子クーポンの利用方法の特徴とする。

【0009】

【発明の実施の形態】 以下、本発明の実施形態について図面により詳細に説明する。

【0010】 図 1 は、本発明の実施形態を示すシステム構成図である。図 1 において、110 はクーポンサービス利用者側の端末装置、120 はクーポンサービス提供者側のサーバ装置であり、これらの装置は通信回線 13

0によって接続されている。端末装置110は、パソコン等の情報処理装置であり、送信されてくる商品・サービス情報を表示するディスプレイなどの出力装置112、テンキー、キーボード、マウスなどの入力装置113、ICカードに格納される情報を読み書きするためのICカード読み取り書き込み装置114、端末装置110のプログラムを一時的に格納するメモリ115と、出力装置112、入力装置113、ICカード読み取り書き込み装置114、メモリ115を接続しかつこれらを制御する制御部111及びクーポンサービス利用者の個人的情報を保管するICカード116から成る。クーポンサービス提供者側のサーバ装置120は、パソコン等の情報処理装置であり、クーポンDB（データベース）122、商品・サービス情報DB123、受注情報DB124、顧客情報DB125、サーバ装置120のプログラムを一時的に格納するメモリ126とこれらのDB及びメモリ126を制御する制御部121から成る。本実施形態では、クーポンサービス利用者側の端末装置110は1台しか示されていないが、もちろん実際には複数の端末装置110が通信回線130を介してクーポンサービス提供者側のサーバ装置120に接続されている。

【0011】図2は、図1に示すICカード116の内部構成図であり、暗証番号記憶部211、顧客属性情報記憶部212、購買履歴情報記憶部213及びクーポン情報記憶部214とこれらの記憶部への情報の読み書きを制御するCPU210から成る。

【0012】図3は、暗証番号記憶部211に格納される暗証番号情報テーブル300の構成図である。暗証番号情報テーブル300は、ICカードを利用する個人の本人認証をするための暗証番号欄301で構成される。

【0013】図4は、顧客属性情報記憶部212に格納される顧客属性情報テーブル400の構成図である。顧客属性情報テーブル400は、ICカードを保有する利用者の個人情報を格納し、顧客番号欄401、氏名欄402、住所欄403、メールアドレス欄404、性別欄405、生年月日欄406、血液型欄407、趣味欄408、職業欄409等で構成される。

【0014】図5は、購買履歴情報記憶部213に格納される購買履歴情報テーブル500の構成図である。購買履歴情報テーブル500は、ICカードを保有する利用者の購買履歴を格納し、購買日欄501、商品コード欄502、商品名欄503、金額欄504及びクーポン利用有無欄505から構成される。

【0015】図6は、クーポン情報記憶部214に格納されるクーポン情報記憶テーブル600の構成図である。クーポン情報記憶テーブル600は、ICカードを保有する利用者がクーポンサービス提供者側のサーバ装置120から送信されてきたクーポンを格納し、商品・サービスを購入する際、割引などの特典を享受するために使用するクーポン情報を格納する。クーポン情報記憶

テーブル600は、割引などの特典を享受する際に購入する商品・サービスと利用可能なクーポンを特定するためのクーポンコード欄601、そのクーポンの利用できる商品名欄602、当該クーポンでの特典内容欄603及び当該クーポンの有効期限欄604から構成される。

【0016】図7は、サーバ装置120のクーポンDB122に格納されるクーポン情報記憶テーブル700の構成図である。クーポン情報記憶テーブル700は、前述のICカード内のクーポン情報テーブル600とほぼ同じ構成であり、異なるのは有効期限欄704の内容が例えば「発行してから3ヶ月」のようにクーポンの有効期限を相対的な期間で表現していることである。

【0017】商品・サービス情報DB123は、各商品・サービスについてその名称、商品・サービスコード、属性（色、サイズ、仕様、性能、機能など）、価格、商品の画像情報などを格納する。受注情報DB124は、受注した商品・サービスについて顧客番号欄401、氏名欄402、住所欄403、メールアドレス欄404、商品・サービスコード、数量、合計金額などを格納する。顧客情報DB125は、顧客属性情報テーブル400の顧客番号欄401から職業欄409までの顧客属性を格納する。

【0018】次に本電子クーポンシステムの処理動作を図8に示すフローチャートに従って説明する。端末装置110は、ICカード116がクーポンサービス利用者によってICカード読み取り書取装置114に挿入されたことを検出すると（ステップ801）、受け付けたICカードが利用者の本人のものかどうかを判定するために入力装置113を介して暗証番号を入力する（ステップ802）。ステップ802において入力された暗証番号と暗証番号記憶部211に格納されている暗証番号情報テーブル300の暗証番号301とを比較し、暗証番号が一致していなければICカードは利用できないものと判断し本処理を終了する。暗証番号が一致していれば、ICカード利用者の本人確認ができたものとしてクーポンサービス提供者のサーバ装置120との情報の送受信を開始する（ステップ803）。サーバ装置120は、商品・サービス情報DB123に格納されている情報を通信回線130を介して端末装置110に送信する（ステップ814）。ステップ814の情報の送信は、インターネットなどによるコンテンツの配信や、双方向で情報の送受信ができるテレビ放送などでの情報配信等いずれの方法でもよい。端末装置110は、サーバ装置120から送信されてきた商品・サービス情報を受信して出力装置112上に表示する（ステップ804）。端末装置110は、入力装置113を介して購入決定した商品・サービスが入力されると（ステップ805）、ICカード116内のクーポン情報記憶テーブル600を商品名602によって検索し、購入が決定した商品・サービスに該当するクーポンがあるか否かを判定する（ス

テップ 8 0 6)。クーポン情報記憶テーブル 6 0 0 に該当するクーポンがなければステップ 8 0 9 に進む。クーポン情報記憶テーブル 6 0 0 に該当するクーポンがある場合は、クーポン情報記憶テーブル 6 0 0 内の当該クーポンの有効期限 6 0 4 を参照し、購入商品・サービスの入力を受け付けた年月日とを比較し（ステップ 8 0 7）、有効期限が切れていたらそのクーポンは利用できないものと判断し、クーポン情報記憶テーブル 6 0 0 から当該クーポンの情報を消去する（ステップ 8 0 8）。ステップ 8 0 6 で当該クーポンがないかまたはステップ 8 0 7 で当該クーポンの有効期限が切れていた場合は、現時点でのクーポンの利用がないので、ステップ 8 0 5 で受け付けた購入商品・サービス情報と、ＩＣカード 1 1 6 に格納されている顧客属性情報テーブル 4 0 0 内の顧客番号 4 0 1、氏名 4 0 2、住所 4 0 3、メールアドレス 4 0 4、性別 4 0 5、生年月日 4 0 6、血液型 4 0 7、趣味 4 0 8、職業 4 0 9 と過去の購買履歴である購買履歴情報テーブル 5 0 0 内の購買日 5 0 1、商品コード 5 0 2、商品名 5 0 3、金額 5 0 4、クーポン利用有無 5 0 5 を通信回線 1 3 0 を介してサーバ装置 1 2 0 に送信する（ステップ 8 0 9）。ステップ 8 0 6 で当該クーポンがありステップ 8 0 7 で当該クーポンの有効期限を満たしていた場合はクーポンの利用ができると判断し、前述ステップ 8 0 9 の送信情報に加え、ＩＣカード 1 1 6 に格納されているクーポン情報テーブル 6 0 0 内の当該クーポンのクーポンコード 6 0 1、商品名 6 0 2、特典内容 6 0 3、有効期限 6 0 4 を合わせて、通信回線 1 3 0 を介してサーバ装置 1 2 0 に送信し（ステップ 8 1 0）、当該クーポンはこの処理で利用されたものとしクーポン情報記憶テーブル 6 0 0 から当該クーポンの情報を消去する（ステップ 8 1 1）。サーバ装置 1 2 0 は、端末装置 1 1 0 から通信回線 1 3 0 を介して送信されてきた情報を受信する（ステップ 8 1 5）。ステップ 8 1 5 で受信した情報にクーポンに関する情報があるかないか、またクーポンの有効期限は期限内かを判断し（ステップ 8 1 6）、クーポンの利用が不可能またはクーポンの利用がない場合は、後に説明するステップ 8 1 8 に進む。ステップ 8 1 6 でクーポンの利用が可能な場合は、クーポンの特典内容に応じて精算処理をする（ステップ 8 1 7）。本発明の実施形態では特典内容 6 0 3 として「1 0 % o f f」とクーポンサービス提供者側の提供価格から 1 0 % を割引く例を挙げたが、金額の割引以外に、商品プレゼント、金券プレゼントなど特典内容は様々なものがある。サーバ装置 1 2 0 は、端末装置 1 1 0 から送信されてきた情報とこれまでに蓄積されたノウハウにより次にクーポンサービス利用者が利用するであろう商品のクーポンをクーポン DB 1 2 2 から抽出する（ステップ 8 1 8）。ステップ 8 1 8 のクーポン抽出処理の具体的一例を示す。端末装置 1 1 0 から送信される情報の中で顧客属性情報テーブル 4 0 0 から 2 9

歳、男性、会社員であること、購買履歴情報テーブル 5 0 0 から紳士スーツ、Ｙシャツ、靴下の購買履歴があること、また今回の購買商品が紳士靴であれば、サーバ装置 1 2 0 は過去の類似する取引履歴を参照し、この利用者が次回ネクタイを購入する可能性があると判断できる。そこでクーポン DB 1 2 2 を参照してネクタイのクーポンを抽出する。複数の商品の間の相関から次に購入する確率の高い商品を推定する技術は、データマイニング技術として知られている。今回受けた注文の確認情報（購買日、商品コード、商品名、金額、クーポン利用の有無）とステップ 8 1 8 で抽出された適正クーポンの情報（クーポンコード、商品名、特典内容、有効期限）を通信回線 1 3 0 を介して端末装置 1 1 0 に送信し（ステップ 8 1 9）、サーバ装置 1 2 0 の一連の動作が終了する。端末装置 1 1 0 は、通信回線 1 3 0 を介して送信されてきた注文確認情報、クーポン情報を受信する（ステップ 8 1 2）。ステップ 8 1 2 で受信した情報の内、購入商品に関する情報はＩＣカード 1 1 6 の購買履歴情報記憶部 2 1 3 内の購買履歴情報テーブル 5 0 0 にＩＣカード読み取り書き込み装置 1 1 4 を介して書き込み、クーポンに関する情報は、クーポン情報記憶部 2 1 4 内のクーポン情報記憶テーブル 6 0 0 にＩＣカード読み取り書き込み装置 1 1 4 を介して書き込み（ステップ 8 1 3）、端末装置 1 1 0 の一連の動作は終了する。

【0 0 1 9】端末装置 1 1 0 の動作を示すステップ 8 0 1 からステップ 8 1 3 までの処理プログラムは、フロッピーディスク、ＣＤ－ＲＯＭ等の記憶媒体によって配布されるか又は通信回線を介して端末装置 1 1 0 に伝送され、端末装置 1 1 0 内のメモリ 1 1 5 に格納されて実行される。また同様にサーバ装置 1 2 0 の動作を示すステップ 8 1 4 からステップ 8 1 9 までの処理プログラムは、同様の手段によって配布または伝送され、サーバ装置 1 2 0 内のメモリ 1 2 6 に格納されて実行される。

【0 0 2 0】以上本発明の実施形態について説明したが、本発明は上記実施形態に限定されるものではなく、本発明の主旨を逸脱しない範囲で種々の変形が可能である。例えば上記実施形態では、ＩＣカード 1 1 6 内に顧客属性情報テーブル 4 0 0 と購買履歴情報テーブル 5 0 0 をもち、購入商品情報と共にこれらの情報をサーバ装置 1 2 0 に送信したが、これらの情報をあらかじめサーバ装置 1 2 0 側の記憶装置に格納し管理してもよい。その場合は、端末装置 1 1 0 側のＩＣカード 1 1 6 内の顧客属性情報テーブル 4 0 0 は顧客番号 4 0 1 のみを格納し、この顧客番号に対応してサーバ装置 1 2 0 が顧客情報を管理するようにすれば他の処理は上記の通りである。

【0 0 2 1】また上記実施形態では、商品やサービスの購入時点に適正なクーポンを抽出していたがクーポンサービス利用者が出力装置 1 1 2 に表示される情報を参照して商品やサービスを取捨選択している最中にクーポン

情報を送信してもよい。この場合には、サーバ装置 1 2 0 はステップ 8 1 4 に続いてステップ 8 1 8 とステップ 8 1 9 の処理中の新クーポンの送信を実行し、端末装置 1 1 0 は非同期にステップ 8 1 3 中の受信した新クーポン情報を IC カード 1 1 6 に書き込む。

【0 0 2 2】また上記実施形態では、IC カード 1 1 6 内の情報を通信回線を通じてサーバ装置 1 2 0 へ送信し、クーポンサービスに活用しているが、この IC カードを店舗に持参して同様のサービスを受けれるようにしてもよい。その場合には店舗のサーバ装置 1 2 0 又は P O S 端末は、ステップ 8 1 4、8 1 5 及び 8 1 9 の処理を行わず、ステップ 8 1 6 ~ 8 1 8 の処理を行って新クーポンの情報及び購入商品の情報を IC カード 1 1 6 に書き込むだけである。またステップ 8 0 6 ~ 8 0 8 の処理は、ステップ 8 1 6 のチェック処理としてサーバ装置 1 2 0 又は P O S 端末で実行される。IC カード 1 1 6 の内容は上記実施形態と変わらない。

【0 0 2 3】また上記実施形態では、IC カード内の情報はクーポンの利用とそれに関する情報に限定されているが、この IC カードに決済機能を持たせるようにしてもよい。なお IC カード 1 1 6 のデータ形式を統一して複数の店舗を収容する電子モールなど複数の店舗に適用することが可能である。

【0 0 2 4】

【発明の効果】以上説明したように本発明によれば、クーポン利用者は、クーポンを取捨選択したり購入商品に適用可能なクーポン券を探すといった手間を省くことが

でき、クーポン提供者としても利用者に有効に活用されるクーポンを発行することができる。このためクーポン利用者にはクーポンを利用する際の利便性が向上し、クーポン提供者は効果的なクーポンの発行を行うことができる。

【図面の簡単な説明】

【図 1】実施形態のシステム構成図である。

【図 2】実施形態の IC カード 1 1 6 の内部構成図である。

【図 3】実施形態の IC カード内の暗証番号情報テーブル 3 0 0 の構成図である。

【図 4】実施形態の IC カード内の顧客属性情報テーブル 4 0 0 の構成図である。

【図 5】実施形態の IC カード内の購買履歴情報テーブル 5 0 0 の構成図である。

【図 6】実施形態の IC カード内のクーポン情報記憶テーブル 6 0 0 の構成図である。

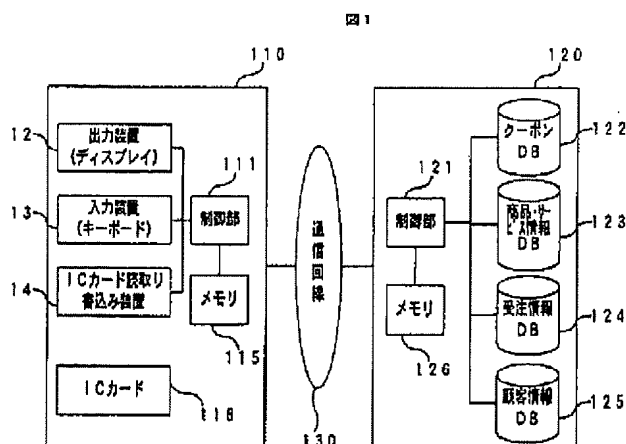
【図 7】実施形態のクーポン DB 1 2 2 のクーポン情報テーブル 7 0 0 のデータ構成図である。

【図 8】実施形態のシステムの処理動作を示すフローチャートである。

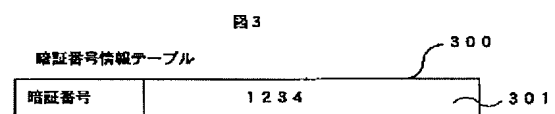
【符号の説明】

1 1 0 : 端末装置、1 2 0 : サーバ装置、1 1 6 : IC カード、1 2 2 : クーポン DB、2 1 2 : 顧客属性情報記憶部、2 1 3 : 購買履歴情報記憶部、2 1 4 : クーポン情報記憶部

【図 1】



【図 3】



【図 4】

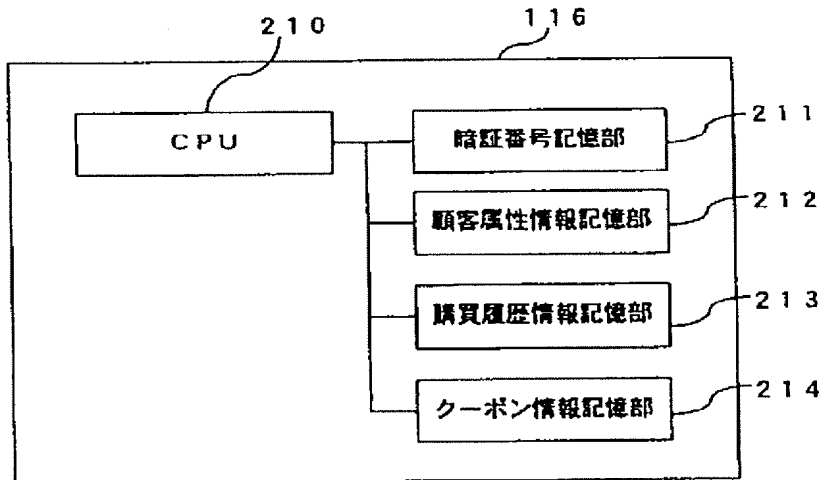
図 4

顧客属性情報テーブル 4 0 0

顧客番号	1 2 3 4 5 6 7	4 0 1
氏名	関東太郎	4 0 2
住所	東京都品川区*****	4 0 3
メールアドレス	taro@***.***.***	4 0 4
性別	男	4 0 5
生年月日	1 9 9 7 . 5 . 1 5	4 0 6
血液型	A	4 0 7
趣味	スキー、ゴルフ、旅行	4 0 8
職業	会社員	4 0 9

【図2】

図2



【図5】

図5

購買履歴情報テーブル

501	502	503	504	505
購買日	商品コード	商品名	金額	クーポン利用有無
1997.1.3	12345	紳士スーツ	58,000	無
1997.1.15	25151	Yシャツ	8,000	無
1997.1.28	98765	靴下	500	無

【図6】

図6

クーポン情報記憶テーブル

601	602	603	604
クーポンコード	商品名	特典内容	有効期限
21368	紳士靴	10%off	1997.5.31

【図7】

図7

クーポン情報記憶テーブル

701	702	703	704
クーポンコード	商品名	特典内容	有効期限
21368	紳士靴	10%off	発行日から3ヶ月
54681	紳士靴	20%off	発行日から6ヶ月
61189	ネクタイ	5%off	発行日から4ヶ月

【図8】

図8

端末装置110:

サーバ装置120:

